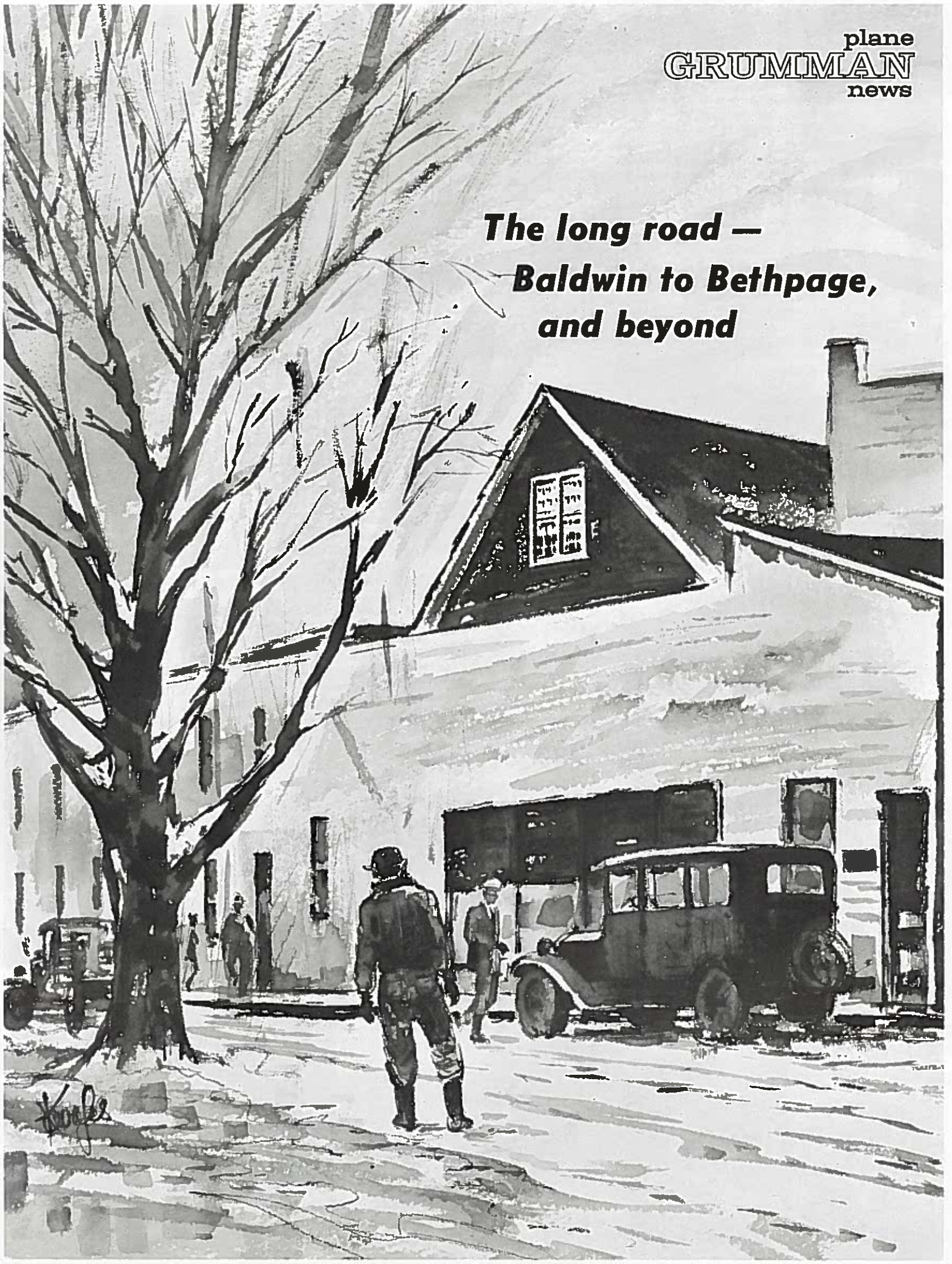
plane
GRUMMAN
news

The long road — Baldwin to Bethpage, and beyond



The first forty: 1930-1970

It was a gamble—but then again what isn't?—And looking back over a 40-year period of ups, downs, tumbles, and spectacular successes, very few indeed of those in on the action at the beginning could say the boat had been missed. After all, when a crew of six—just two months after the Great Depression of 1929—band together, rent a run-down abandoned garage, and parlay a $25,000 stake into a company employing over 30,000 people and doing a billion-dollar-a-year business, about the only missed boat might have been the Ark.

Of course, it took time, and a lot of "dog work" and jolts from a Fate that sometimes didn't know what side it was on. But Grumman Aircraft Engineering Corporation, from the time it opened for business on January 2, 1930, till the present as Grumman Corporation, has been a going concern; and it's not erroneous to characterize the Company as a seeker and developer of new products and techniques, both commercial and military.

It may have been in the nature of the founders, Roy Grumman, Leon "Jake" Swirbul, Ed Poor, Joe Stamm, Bill Schwendler, and Clint Towl. The first five had worked for the Loening Aeronautical Engineering Corp.; Towl came to the Baldwin garage from a Wall Street brokerage house. Then, carefully, the six recruited 15 other men. There were just 21, that's all—but all of them willing workers, each doing whatever needed to be done at the time. If the floor cried out to be swept, the broom-wielder might be Schwendler or Grumman, or Towl. Rank meant nothing when there was work to do.

And that work, at first, meant repairing Loening craft and building (and selling to the Navy) an amphibian float (Float A). The Navy bought two—at a cost of $33,700. What attracted the Navy was the A's retractable gear. But they wondered: Was it sturdy enough to use on a catapulted plane? If the Navy had doubts, Roy Grumman and Jake Swirbul didn't. The two clambered into the cockpit and "let 'er rip". It worked. Of such things are companies built!

The Navy then bought 15 modified "B" floats.

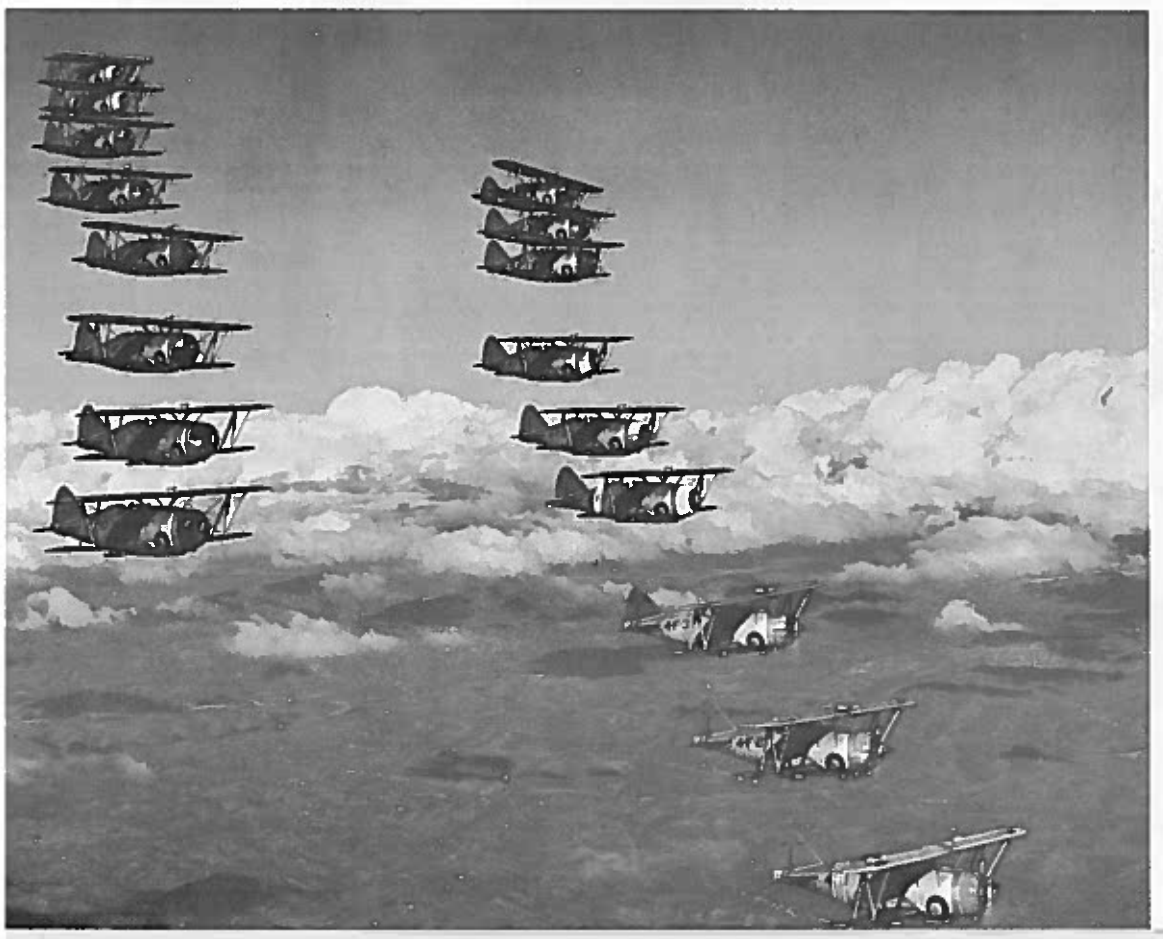
While the Company made some physical moves (Valley Stream in 1931, Farmingdale a year later, and Plant 1 at Bethpage in 1937), the significant thing was that GAEC got doing what it wanted to do from the outset: building aircraft. It started with a Navy buy of 27 FF-1's, a two-seater biplane fighter with retractable landing gear—an innovation that a lot of military "experts" said wouldn't work on a high-speed aircraft. Too heavy, it'll slow down the plane . . . that's what they said. Well, that added weight wasn't a drawback; in fact, the plane flew 20-miles-per-hour faster with the new landing gear on. A "Scout" version was built in 1932 and the Navy took 33, and a year later came a rash of Navy utility aircraft designated as "Ducks," amphibians that, through redesigns, were produced until mid 1937.

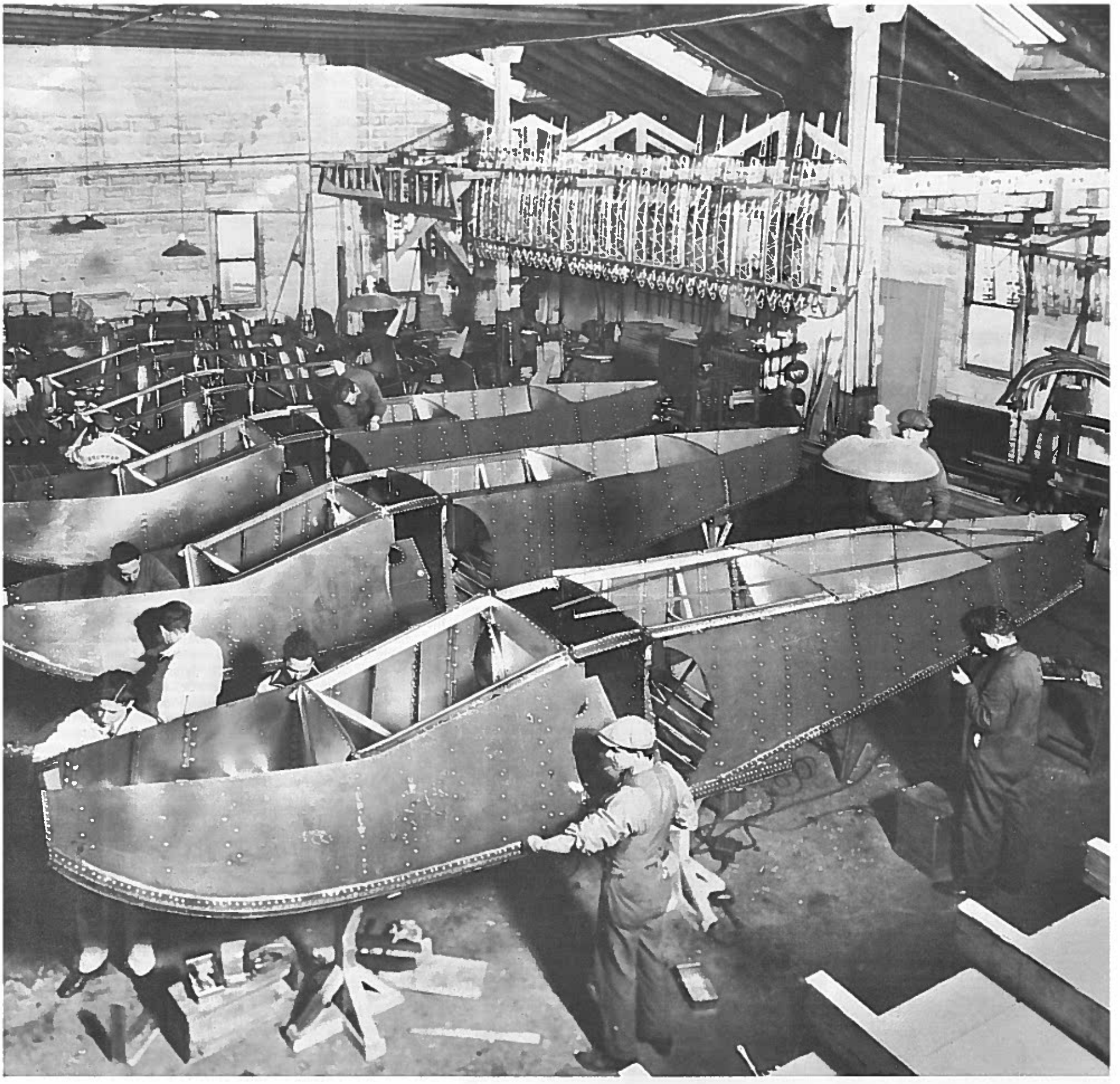
Grumman's first single-seat fighter (F2F-1) was tested in 1933 and 55 went over the fence in 1935; our first monoplane fighter (XF4F-2) was delivered in 1937 and was the prototype for the "Wildcat" fighter—a bird soon to be reckoned with in Europe and the Pacific. By 1939, all Navy and Marine fighter squadrons boasted Grumman planes.

Fighters and scouting aircraft weren't the sole targets of the Company. Commercial amphibians in the Goose series were being turned out from the mid-thirties until as late as 1945, and a "baby Goose," the "Widgeon," was being built in '39. Many are still in service as passenger planes in the United States, the Caribbean, and South America.

And a special niche is set aside for the "Gulfhawk," built in 1936 for Gulf Oil Co. as a stunt plane. (A second one, also for Gulf, flew as a transport a couple of years later.) Many old-timers say that the Grumman-built Gulfhawk flown by Al Williams was **the one**—the first aircraft to make the country truly air-conscious. Whether that smacks of hyperbole is beside the point. It illustrated a dawning era of aviation on a massive scale, and Grumman was in that flight arena. Soon, in a big way.

40th Anniversary issue
January 16, 1970





1940s

More than 3,000 were killed and 19 U.S. Navy ships were hit, some sunk, on the morning of December 7, 1941, at Pearl Harbor, Hawaii.

Seven aircraft carriers had the good fortune of not being in the vicinity at the time. But the nation had been hit hard.

And on that same day, with suitable fanfare, Grumman officials were dedicating a new facility, Plant 2, when the startling news reached Bethpage.

And suddenly the war was here.

When the crisis came, there was at least some degree of military preparedness—although, in 1936, some ranking military officers had opined that there was no longer any role for fighter aircraft; new bombers would be so versatile and so heavily armed that fighter escort and cover would not be needed. Roy Grumman and Jake Swirbul—and fortunately, many thousands of others—dissented. The Administration, the Navy, and the Marine Corps dissented, too. And when the Japanese struck, there were Marines on Wake Island flying Grumman Wildcats, planes that sank an enemy cruiser with 100-pound bombs and killed a sub the same way.

The beginning, though, had come earlier: the Nazi blitzkrieg blasted Poland on September 1, 1939. Britain and France responded with declarations of war. Europe, once again, was visited by the holocaust.

Some Allied action, however feeble, had been taken earlier. Firm orders for planes lagged, however. France, for example, had placed an order for 81 Grumman G-36A's and delivery began in February of 1940. One week after the aircraft's first flight, France fell. Britain took over the order, calling the plane Martlet I. Later, the British ordered 100 Martlet IIs, and, when 30 F4F-3As ticketed for Greece under lend-lease were seized by Britain as Greece was overrun, the planes became Martlet IIIs.

By whatever name, Britain needed aircraft to combat Goering's Luftwaffe, and she could not meet her requirements from her own production.

America, too, needed planes; after Pearl Harbor, the Government grabbed just about anything that flew, military. commercial, or private. Aircraft companies all over the nation spun into high gear; and, for the Navy, Grumman was clearly in the forefront—actually, the first company to win the Navy E award for production excellence. And Grumman won it again and again. . . .

The why of the awards? Consider:

- In 1942, Grumman produced three times as many aircraft as had been made in the 12 years of the Company's history
- On one occasion, more than 600 aircraft were fabricated in a single month
- Near the end of 1943, Grumman was turning out more planes than any other company in the world
- More than 17,000 combat planes were produced during World War II
- Grumman's Avengers, Wildcats, and Hellcats accounted for two-thirds of the enemy aircraft destroyed in the Pacific theater

Testimonials to the men and women (more than 26,000 at peak) of the Grumman "Iron Works" came racing in. Former Secretary of the Navy James Forrestal remarked that "In my opinion, Grumman saved Guadalcanal." New York Times correspondent Foster Hailey said, "The Grumman Wildcat, it is no exaggeration to say, did more than any single instrument of war to save the day for the United States in the Pacific."

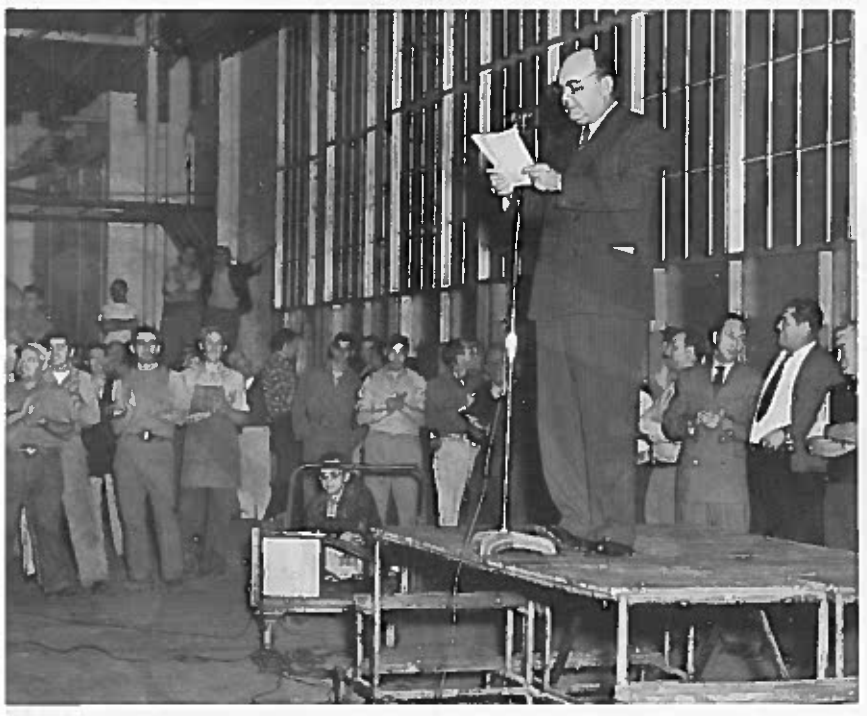
Life Magazine's Robert Sherrod reporte that an admiral exclaimed, "Thank Go for Grumman!"

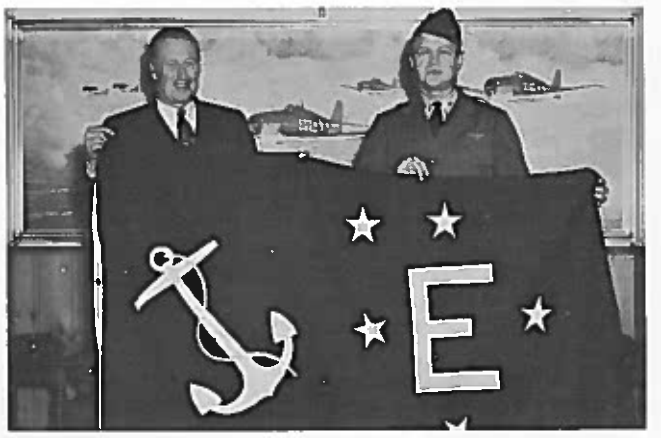
Similar plaudits came from other wa zones—North Africa, the Mediterran ean, the landings in southern and north ern France, and the treacherous convo lanes. It's said that the Avengers, whic were torpedo bombers, sunk more U boats in the Atlantic than any othe plane.

The records, of course, belong to th **people**, who did an extraordinary jot They came from all walks of life. The were farmers, housewives, clerks, ga station attendants, butchers, broker policemen, carpenters . . . 90 per cen were Long Islanders . . . and the grea majority had never before set foot in a aircraft factory.

People, people, people—and what job they did! Workers who came t Grumman from other war industrie were a bit startled to find no monitor no efficiency experts checking up o them. Yet, quotas were always met. A pervasive air of confidence, cooperatio and job dedication was noted by out siders visiting our facilities; and th same spirit was evident inside.

It had a family atmosphere from th beginning and despite the severe pres sures of building planes at an accelerat ing work rate (72-hour weeks were no unusual) that warm atmosphere no only continued but was enhanced. Sport





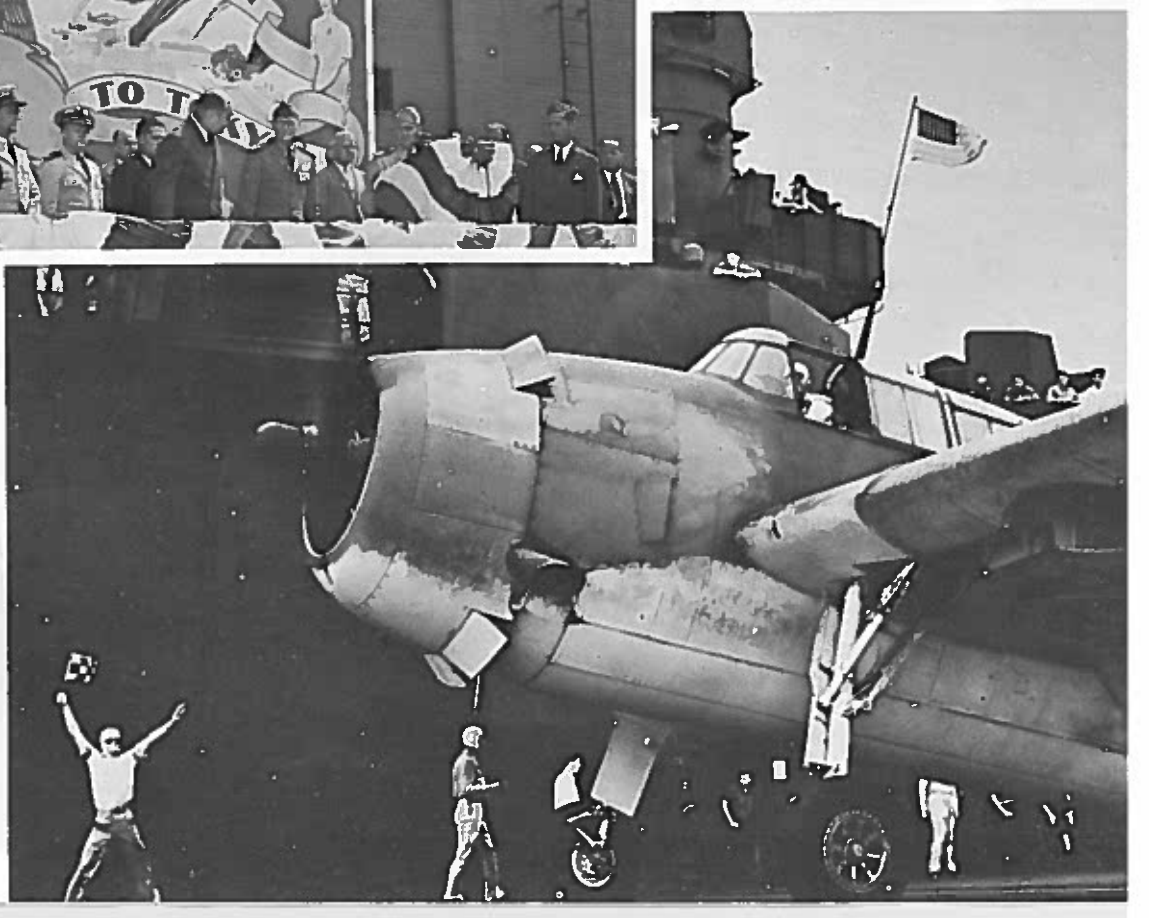
activities, like lunch-hour softball, table tennis, and basketball, helped; so did a dance band and an orchestra playing concert music; so did the fringe benefits, which included personnel counselors for women and a Company-operated nursery school; so did the "little things"—like Jake, in shirtsleeves, casually stopping by to pass the time of day with people in the shop. "We've got the best bunch of people in the country working here," Jake said, "and look around—they seem to like it."

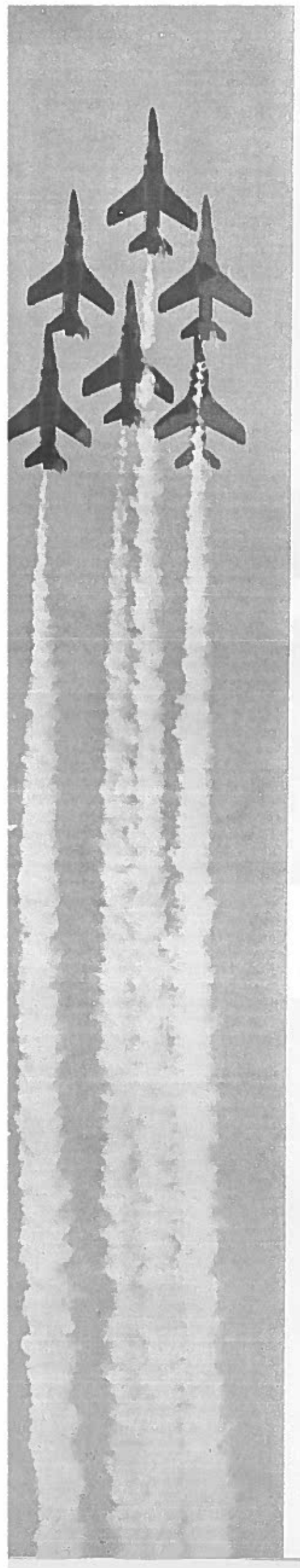
And they did.

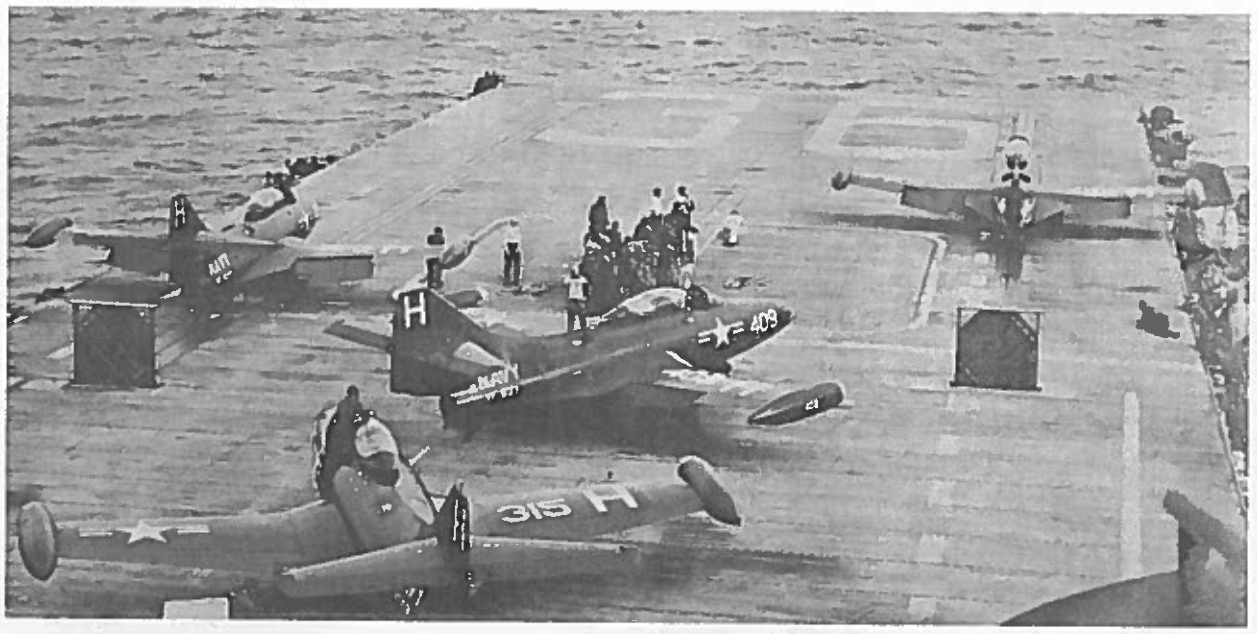
As the war was ending, eyes were naturally fixed on the domestic aircraft market. It was a time of high hopes (after all, there were a lot of pilots around) but the expected boom didn't materialize—although 59 of the 10-to-12-seat, plush amphibians (the Mallards) were sold.

Yet, there was continuing activity in the military field—modifications of the speedy Bearcat first flown in '44, some Tigercats, and the immensely successful Albatross, an amphibian used as a utility transport and for air-sea rescue work for the Navy, Air Force, and Coast Guard. Then, in January of 1949, Grumman stepped into the new era of fighter planes with the F9F-2 Panther, the Company's first jet. (The Panther line, including an earlier non-jet version, photo reconnaissance and fighter-bomber models, lasted for more than 1,350 aircraft over a four-year period.)

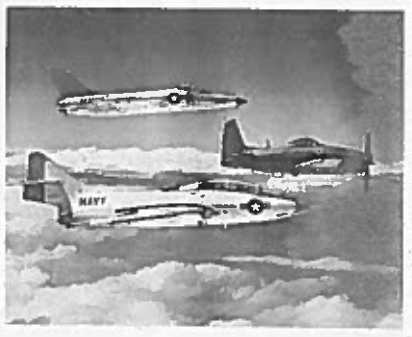
For the hundreds of millions of people who have watched the incredibly precise aerobatics of the Navy's "Blue Angels," it should be mentioned that the team began with Hellcats in 1946, graduated to Bearcats, and then flew Panthers, Cougars, and Tigers—all Grumman aircraft.







1950s



The fifties dawned and once again the Navy's Grumman-built aircraft were in the thick of the action.

On June 24, 1950, some 60,000 North Korean troops, backed by 100 tanks, invaded the Republic of North Korea. The U.N. Security Council ordered the cessation of hostilities and withdrawal of North Korean forces to the 38th parallel.

Two day later, the U.N. called on member nations to support the Council's decision actively. In response, President Harry S. Truman put Gen. Douglas MacArthur in charge of U.N. military operations and directed the U.S. Seventh Fleet to protect Formosa and discourage further aggression.

First on the scene were Panther jets (F9F-5s), the first carrier-based jet fighters in combat. These planes, as it turned out, were more than single mission fighters; their 'round-the-clock efforts for Navy and Marine pilots included combat air patrol, armed reconnaissance, photo reconnaissance, flak suppression, bombing, strafing—in short, almost the whole ball of wax. The aircraft's record was faultless in air-to-air combat with enemy MIG-15s, knocking down 15 or more without a loss.

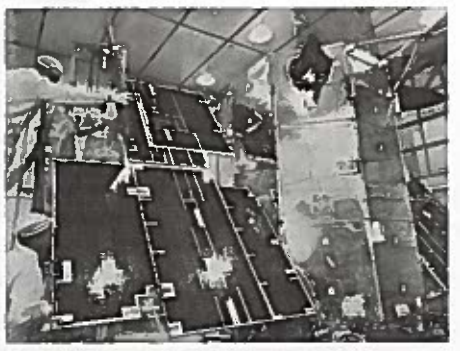
Then there were the Guardians (ASW), the swept-wing Cougars (the successor of the Panthers), and, still in service, the superb Albatrosses.

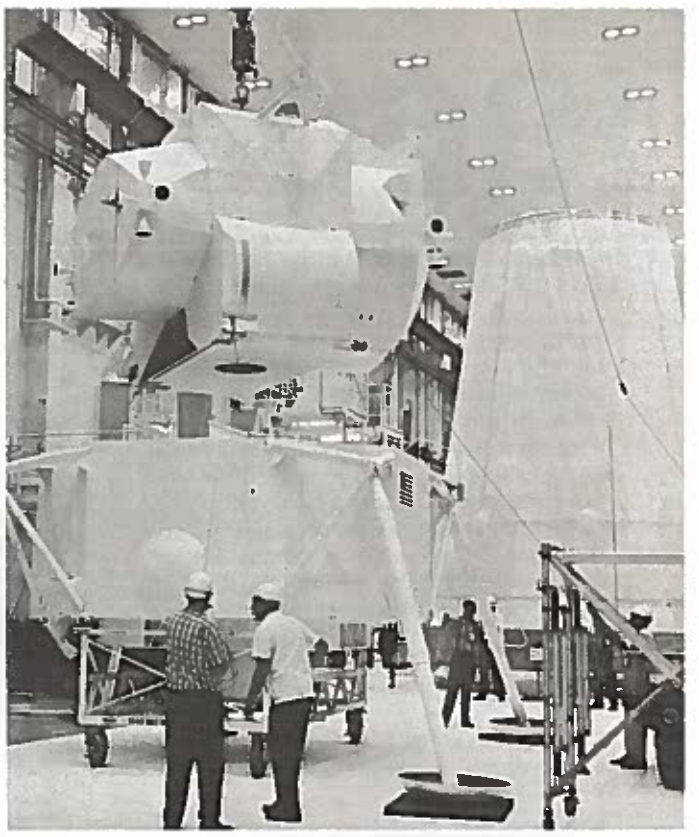
As new aircraft came along they found a new "home" for final assembly and flight testing with the development of the Calverton area in 1954. Here, in the tree-covered flatlands of eastern Long Island, there was open space, lots of it, shielded from heavily populated areas, more than adequate for flight testing of the swiftest jets. It was the logical spot for final assembly efforts.

Aircraft diversification followed the Korean "Police Action"—the S-2 Tracker (ASW) the F11F Tiger, the Trader (Carrier-Onboard Delivery), the Army Mohawk, and the Tracer (Airborne Early Warning) in the military field; and two big ones in the commercial area, the Gulfstream I corporate aircraft and the Ag-Cat, a biplane designed for the agricultural industry.

The Gulfstream I turned out to be a roaring success among the nation's corporations. Over the next 10 years, close to 200 of them were produced. The plane performed so well in the next decade that six of the twin-turboprop corporate transports were converted to A-6 weapon systems trainers.

The same "it sells itself" qualities distinguish the Ag-Cat, the elite crop duster and crop sprayer of the agrarian industry. Not only did the craft cover more acres per hour than any other agricultural plane, it was fantastically durable, reliable, and versatile.





1960s

The Sixties! What a decade that was!

The world suddenly burst with innumerable technological advances. There were explosions of accomplishment in outer space, inner space, and the earthly environment that had appeared so familiar.

Facilities mushroomed at an unprecedented pace as the Company dug deeply into areas it had touched but lightly before—and in doing so, restructured itself to meet the rapidly changing conditions of corporate competitiveness. Quick, racing change was everywhere.

A revolution had occurred. It would take time, and extensive study by historians, to assess it properly. Now we are too much a part of it to capture the feel and meaning of it all.

But there are some hints of greatness—

Take the dramatic—the astonishing—moon landing. It's inconceivable that it will not rank high on the long list of human achievements.

It had taken but eight pressure-packed years to prove that the "impossible" was indeed possible—provided that man really wants to tackle the job. We wanted to, we set the goals, and we did it. Some 300,000 people in 20,000 companies that spread across the nation harnessed energies never so well focused before in any peacetime endeavor.

At Grumman facilities in Bethpage, Kennedy Space Center, White Sands (New Mexico), Houston, the pile driver force was on one critical phase of the Apollo mission, construction and testing of the Lunar Module, the vehicle that was to, and did, take two astronauts (and then two more) to the surface of the moon and back home again.

July 20, 1969—a suspenseful world hoping, praying, tense—and from the men on the moon a curt announcement:

"Houston. Tranquility Base here. The Eagle has landed."

Later that day, the unflappable Neil Armstrong (getting ahead of the timetable) stepped down the eight-rung LM ladder and set foot on the moon, and said to the world, " . . . one small step for man, one giant leap for mankind."

Incredible.

He and his LM companion, Buzz Aldrin, went for a moonwalk, later blasted off to join Mike Collins, who was orbiting the moon in the mother ship, Columbia.

In November the moon landing and return was duplicated, this time with Pete Conrad and Al Bean doing the moonstriding and Dick Gordon doing the moonorbiting.

1960s

And there was yet more in space: the Goddard-Grumman Orbiting Astronomical Observatory (OAO) was flying about 480 miles "up" at a speed of 16,000 miles per hour, and still orbiting after more than a year, transmitting information that promised to be of great value to the world.

Getting back down to earth (but still flying), there was good news just one year ago when Grumman won the fierce competition to design, test, and build the Navy's first air-superiority fighter in well over a decade. This aircraft, the F-14, has the job of tackling—and defeating—any enemy plane in the world. It's so good its main value may prove to be a "peace" plane, one that by its very presence may prevent war.

Getting that aircraft into production and over the fence is a pressure-cooker job, one like Grummanites did on LM. Brains, skills, inventiveness, dedication, just plain hard work hour after hour and day after day—all that and more go into it. And people on the program, as usual, are responding to the challenges.

All this is from the most recent past. Going back to the first months of 1960, the single most effective Navy attack-bomber in the world—the A-6A Intruder—made its debut. Its performance has been lauded time and time again by those who are in the know, the pilots and bombardier/navigators who fly the aircraft. It is the world's only true all-weather aircraft, the only plane that can fly "blind" and hit the target on the nose.

As one might suspect, success has bred new versions: the EA-6A, a two-place tactical electronic countermeasures (ECM) aircraft, the EA-6B, a four-place all-weather electronic warfare aircraft, and the KA-6D aerial in-flight refueler.

Seven Grumman-built aircraft are on active duty in the Vietnamese conflict: Intruder, Tracker (ASW), Tracer (Airborne Early Warning), Greyhound and Trader (COD), Mohawk, and Hawkeye (Airborne Early Warning).

A word or two should be said about the Hawkeye, a stalwart aircraft that can cloak the Fleet with an electronic warning system and switch to the offensive in a blink of an eye. These squadrons are probably better known now for their control of aircraft going in for strikes, and then making sure they're headed right for a safe return to the carrier deck.

And also in the military field, Grumman continues to produce the aft section of General Dynamics' F111A. The work is done in Plant 36, Garden City.

Switching to the corporate and commercial aircraft scene, the entire job of building the new corporate fanjet Gulfstream II was set up at facilities in Savannah, Georgia. And in April of 1966, an improved and enlarged agricultural plane, the Super Ag-Cat, was in production. Almost 300 have already been sold.

There were noteworthy attainments in other fields, too:

- The submersible Ben Franklin, built in Monthey, Switzerland, and tested in the waters off West Palm Beach, Florida, made a very successful 1444-nautical-mile underwater drift mission in the Gulf Stream.
- The Marine Department has produced three different types of hydrofoils, the Denison for the Maritime Administration, the Dolphin for passenger service, and the gunboat Flagstaff for the U. S. Navy
- The purchase of the new plants in Glen Arm, Maryland, and Sterling, Virginia, added to our machining capabilities.

On top of all this was phenomenal plant expansion, considerable improvements in so-called fringe benefits—insurance, medical, pension, and vacation programs, for instance — steady emphasis on research and advanced materials, future systems proposals. . . . something always seemed to be going on somewhere . . .

Also, on the sadder side of the ledger, it was in the summer of 1960 that Jake Swirbul died, a loss that staggered people who had known him whether within Grumman or outside.

Jake's death forced the first major change in the corporate line-up. Clint Towl moved up to the post of President, and Bill Schwendler became Chairman of the Executive Committee. When Roy Grumman retired in 1966, Towl became Chairman of the Board and Chief Executive Officer. Lew Evans, who had been Vice President in charge of Business Development, was then named President.

In 1969, Company stockholders voted in May to change the corporate name from Grumman Aircraft Engineering Corporation to Grumman Corporation (that became official in July), which opened the way for a restructuring of the corporation.

Grumman Corporation became the parent organization with four subsidiaries:

Grumman Aerospace Corporation, Grumman Allied Industries, Inc., Grumman International, Inc., and Grumman Data Systems Corporation.

Towl serves as Chairman of the Board for all five corporate units. Evans is President of Grumman Corporation and Grumman Aerospace Corporation; Wallace Spielman is President of Grumman Allied, Tom Cheatham fills the same role for Grumman International, and Pete Viemeister is President of Data Systems.

The underlying rationale for the reorganization was explained by Towl: "It is our purpose to take the most efficient approach to new areas of commercial business to which Grumman's capabilities and experience are applicable." Put another way, the reorganization is a design for the future—a future that, by all signs, will become increasingly competitive.

The task of the future is to see needs early, develop the skills and experience and "machinery" to meet those needs, and then put them in the marketplace. And that marketplace is as wide and deep as creativity and vision can make it. . . . ecological studies, space shuttle, housing, geological surveys, land transportation vehicles, underwater scientific stations . . . there is no end to what can be done. **Everything** is potentially mankind's environment.